

GUS-0274 ✓  
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26 May 1959

MEMORANDUM FOR THE RECORD:

SUBJECT: Comparison Study of Proposed Follow-on Vehicle

1. This report represents an initial comparison study of the two proposed follow-on vehicles; Convair's Super Hustler and Lockheed's A-11.

2. The evaluation is based on the following references:

(a) Memo for Record, Subject: "Follow-on Operational Considerations," dated 25 May 1959.

(b) Memo for Record, Subject: "Follow-on - Evaluation Criteria," dated 25 May 1959.

3. Operational Comparison

(a) Performance

	<u>Super Hustler</u>	<u>A-11</u>
1 <u>Speed</u>	Mach 4.0	Mach 3.2
2 <u>Range</u>		
(a) W/O Refueling	4150 NM ?	25X1D
(b) With Refueling	B-58 6,000 NM - pre-strike Super 4,000, + ? ? post-strike	25X1D 3X -
25X1D 3 <u>Altitude PROFILE</u>	90,000 <u>~ 100,000</u>	87,000 ft <u>~</u>
4 <u>Employment</u>	Requires staging or deployment base	Requires no overseas bases. Can T.O. and land from one Z.I. base (Security - Logistic - Political and Cover factors.)
5 <u>Radar Immunity</u>	<u>LOW RADAR REFLECTIVITY</u> Considered	<u>HIGH RADAR REFLECTIVITY</u> Not considered
25X1D 6	Considered <u>HIGHER</u>	Considered <u>LOWER</u>
25X1D		
8 <u>Turn Around Time</u>	Estimated 8 - 12 hrs ?	Est 3 - 4 hrs ?

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	<u>Super Hustler</u>	<u>A-11</u>
9 <u>System Availability</u>	Contractor estimate 24 Mo.	18 - 24 Mo.
10 <u>Navigation System</u>	Inertial Guidance System	Inertial Guidance System
11 <u>Fatigue Factor</u>	Capsule Concept - comfortable cockpit environment	Pressure suit - and high temperatures
12 <u>Escape System</u>	Capsule - feasible and desirable	Minimum acceptable by USAF standards
13 <u>Payload Capability</u>	500 lbs - five alternate locations <i>ADDED WT + CUBAGE MORE DIFFICULT THAN</i>	500 lbs. U-2 size Bay 5 ft diam. 72 in. long 48 in. hatches
14 <u>Logistics</u>		

It is difficult to compare the two vehicles since very little is known about the special ground handling equipment, fuels, retrieve procedures, etc. The following is a rough estimate of requirements.

(a) <u>Maintenance</u>	Equivalent to operating 4 U-2s per single mission	Equivalent to operating 2 U-2s for single mission
(b) <u>Ground Handling</u>	Unknown	Unknown
(c) <u>Time Estimates</u>		
(1) <u>Sortie Rate</u>	one/day	one/day
(2) <u>Turn Around</u>	8 - 12 hrs depending on retrieve	6 - 8 hrs.
(3) <u>In commission rate</u>	50% of A-11	Unknown
(4) <u>Logistics</u>	<u>Double Qty</u>	<u>Single Qty</u>
(1) <u>Ground Equip</u>		
(2) <u>Personnel Equip</u>		
(3) <u>Hangar space</u>		
(4) <u>Cargo space</u>		
(5) <u>Staging operations</u>		

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(5) Engines

3 types

1 type

3 contractors

1 contractor

7 total

2 total

25X1A9a



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Chief, Operations Branch, DPD

DPD/DD-P:AES/am

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